

A list of the donations to the Library was presented and thanks were ordered therefor.

The decease was announced of the Duke of Argyll at London, on April 24, aged 77 years.

Mr. A. Radcliffe Grote presented a paper entitled "Historical Sketches of Gortyna and Allied Genera."

Dr. Sellers called attention to the Hawkins polygraph, formerly the property of and much used by Thomas Jefferson, an ex-President of this Society, and exhibited several letters from Jefferson to the late Charles Willson Peale, devoted to the subject of the polygraph, which he had obtained from Peale.

The Society was adjourned by the presiding officer.

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## HISTORICAL SKETCH OF GORTYNA AND ALLIED GENERA.

BY A. RADCLIFFE GROTE, A.M.

(Read May 4, 1900.)

The exact determinations of certain North American species of *Gortyna* by Mr. Henry Bird, of Rye, N. Y., which largely rendered the recent revision possible, as well as the discovery of the larval stage of several species by this excellent lepidopterist, make it again a matter of importance to present a sketch of the use of generic titles for the species in literature. While as to the type and use of *Gortyna* I do but sustain my former position, I again correct here my earlier statement that this generic title was originally published by Hübner. I cannot find it in the Tentamen and I have clearly made a mistake in so crediting it in 1876. I am here indebted to the assistance of Dr. Haeberlin, Librarian of the University of Göttingen.

### GORTYNA.

1816. Ochsenheimer, *Schm. Eur.*, 4, 82: *Micacea*, flavago.

1816. Hübner, *Verz.*, 232: *Micacea*.

*Micacea* thus becomes the type, as always stated by me, but only and sufficiently through this restriction. The genus should, there-

fore, be credited to Ochsenheimer, and my former reference to the Tentamen: Buffalo Check List, 37, must be canceled. The error will have happened in copying out my notes, and from its being on my mind that Hübner fixed the type, but its correction practically strengthens my position, as to the use of *Gortyna* for this type, for those nomenclators who still reject the Tentamen; although it is difficult to conceive how this course can be reconciled with the statements printed by Mr. Scudder, Lord Walsingham, and by myself as early as 1875-6, at the same time showing respect for the action of the law of priority. Hübner's use of *Gortyna* indicates that this portion of the Verzeichniss was published *after* Ochsenheimer's volume appeared. Through Hübner the genus *Gortyna* receives for the first time a diagnosis, though but a brief and unimportant one. Ochsenheimer gives no generic characters whatever. It seems to me the present statement must define the right of *Gortyna* to its type, and this beyond peradventure.

1829. Boisduval, *Eur. Lep. Index Methodicus*, p. 84.

Here the name *Gortyna* is credited to Treitschke and referred as a synonym to "*Xanthia mihi*!"

1840. Boisduval, *Genera et Index Methodicus*, 144: cuprea, micaea, flavago, lunata, luteago.

The name *Gortyna* is properly credited now to Ochsenheimer and "*Xanthia*, Boisd. *olim*" referred as a synonym.

1837. Guenée, *Ann. Soc. Ent. Fr.*, 6, 329: celsia, flavago, luteago, micacea, leucostigma.

1852. Guenée, *Sp. Gen. des Lep.*, 5, 120: lunata, xanthenes, mæsiaca, flavago, rutila, marginidens, limpida, nebris, nitela.

*Flavago* is given as type (p. 122), but this is impossible, since the type of *Gortyna* became *micacea*, through Hübner's action in 1816.

1857. Lederer, *Noctuinen Europa's*, 120: flavago.

But the name *Gortyna* cannot, as above stated, be restricted to this type.

1876. Grote, *Check List of the Noctuidæ of America north of Mexico*, Buffalo, Reinecke & Zesch, 37.

I give here the type of *Gortyna* as *micacea*, but refer the name incorrectly to the Tentamen, 1806. In my lists and other writings,

except where I refer in 1874 and 1882 a group of species to *Apamea*, I use *Gortyna* for the entire genus, so far as the American forms are concerned. In the first catalogue of North American Noctuidæ, in which I brought the material into accord with Lederer's system, as far as then (1874) possible, I followed Guenée's use of the terms *Hydræcia* and *Gortyna* in the *Species Général* (see *Bul. Buff. Soc. Nat. Sciences*, April, 1874). This list of mine in 1874 is the basis of all subsequent lists or catalogues of the North American Noctuidæ.

1882. Grote, *New Check List*, New York, 29.

Here the N. Am. species are divided under two generic titles: *Apamea*<sup>1</sup> (= *Gortyna* Ochs. = *Hydræcia* Guen.) and *Gortyna* Guen. This separation is not tenable, since the thoracic tuftings upon which it is based are variable and the names are moreover wrongly applied. In thus using *Apamea* I really followed Guenée, *Ann. Soc. Ent. Fr.*, 6, 335, who there refers to it: *nictitans* L. and other species not belonging here. My action amounted to a substitution of *Apamea* for *Hydræcia*, which cannot be followed and was subsequently abandoned by me.

1890. Grote, *Revised Check List*, Bremen, Rühle & Schleuker, p. 20.

The North American species, with smooth clypeus, are all referred to *Gortyna*, but the genus is erroneously credited to Hübner (see above).

1895. Grote, *Ab. des natur. Vereins zu Bremen*, xiv, Seite 43-128.

In this list the North American species are referred to *Gortyna*, and the genus is correctly given to Ochsenheimer, under Hübner's restriction in the Verzeichniss. Thus I "finally" use *Gortyna* and not *Hydræcia* for the genus.

By the foregoing sketch the original use and restriction of *Gortyna* in early European literature is exhibited, and I connect this precedent with my use of the term for our American species.

<sup>1</sup> The name "*Apamea stramentosa*" in Canadian lists probably came from me, since I originally determined the species for correspondents in Canada, and am seemingly the only author who referred the species to "*Apamea*." I commenced to determine the Am. Gortynæ in the sixties, for Prof. Riley, Mr. Graef, etc.

Further citations from English and German authors could be given, but since these all postdate the Verzeichniss, which fixed the type, they are without effect upon the result.

My constant use of *Gortyna* is amply vindicated, and it is an unwarrantable innovation, one not authorized by Guenée himself, to use *Hydræcia* for the American species. It matters not that Lederer, with the indifference of his epoch to types and generic nomenclature, mistakingly used this genus for the European forms. It was natural that he should do so, because he only distinguished between *flavago* with a clypeal thorn and all the rest, and he took the only two terms he found in Guenée and applied them both wrongly. *Gortyna* Ochs. is his *Hydræcia*, and his *Gortyna* must be called *Ochria* Hübn. Now, I prevented the American lists from unnecessary changes by adopting *Gortyna* for the whole genus except *Ochria*, and I complain that in the late revision an unnecessary change from my determination has been made. An unfortunate grievance, relating to changes in nomenclature, has been lately again voiced by Mr. H. H. Lyman. But, clearly, if the types are ascertained and the oldest generic titles once for all determined, there will be no further changes, or these will limit themselves to subjective opinions as to the extent of the shifting conceptions we call genera. There will at least always be a certain type, around which the separated genera must cluster and to which the species can revert. For nearly forty years have I been thus investigating the literature and structure of the North American noctuids and trying to fix the right titles and types according to my slender resources and feeble abilities. At the present time a rude and conscious effort is being made to break down my work by misrepresentation or an ignoring of the facts brought forward, as in this matter of *Gortyna*. Take another case: my determination of *Lithophane*. I here have shown that Hübner's *Xylena* was proposed in 1806 for the type *lithoxylea*, with which our *lignicolor*, *auranticolor*, *cuculliformis*, *hulsti*, etc., agree generically; the larvæ, so far as known, have a thoracic shield. But, in 1816, Ochsenheimer, adopting this genus with its type from Hübner, changed the spelling to *Xylina*, and placed the summer-flying species of *Xylena* together in one category with the autumn haunting species of *Lithophane*. These ill-consorted forms could not so remain, and we find accordingly a separation attempted by subsequent authors. But, in this effort, the original signification of

*Xylena* was lost, its type *lithoxylea* wandered off and was ticketed as *Xylophasia* by Stephens. This is again a name bearing reference to the woodlike ornamentation and color, broken and pale ochrey yellow or reddish, something like ingrained, fresh oak wood. The name *Xylina* was on the contrary inappropriately retained for the stonelike species of *Lithophane*. Now, I have restored the types and righted this; if I am followed it will clearly save future confusion. It is easy to change now, but, difficult or not, the change must be made hereafter when more painful, unless reason fly and lepidopterology decay. If it is objected that I here validate the Tentamen, I say a document endorsed by Mr. Scudder, Lord Walsingham, Mr. Kirby and Dr. Dyar will, *must* command assent with all the facts for it. It is a battle of literary knowledge, science against prejudice. One would think my work as to *Lithophane* could have been accepted, on the contrary it is sophisticated, the incorrect application of *Xylina* again reverted to, changed back, under what excuse but to differ? Far more attention should be paid not to duplicate specific names in the group, entailing by this neglect the future certain confusion of collectors, and to give always the original description, which alone has scientific value and does not imperil the identification, and finally to avoid undue self-assertion in one's work, but *egregium cum me vicinia dicat non credam?*

#### OCHRIA.

1813. Hübner, *Verzeichniss*, 233; aurago, 00, *flavago*.

In 1852 00 became the type of *Dicycla* Guen., *aurago* is referred by Guenée to *Citria*, and I was free to limit this title, which else had no type, to the species *flavago*, which has a clypeal thorn and is *sui generis*.

1875. Grote, *Check List*, Buffalo, 11, 22: sauzalitæ.

This American species has also a thorn on the clypeus, which can be felt by passing a fine pin tenderly across the front, but it does not resemble the European species. It looks very much like *Gortyna purpurifascia* or *harrisi*. It comes from San Francisco and the type is in British Museum.

1882. Grote, *New Check List*, New York, 29: sauzalitæ, buffaloensis.

This second species, from the East, has also a thorn, and resem-

bles in appearance rather *Gortyna limpida* or *cerussata*. In my subsequent lists I have kept up this reference. The value of this genus depends on the clypeal protuberance which the species of *Gortyna* lack. It is the same with *Sphida obliqua*, which differs in a like manner from the species of *Arzama*. *Ochria* is thus rather an artificial than a natural phyletic assemblage of species, which seem to have arisen, here and there, out of forms having an unarmed clypeus. Not impossibly are *cataphracta* without and *flavago* with a clypeal protuberance phyletically related, the European species having acquired the projection since the tertiaries.

If *Ochria* be for reason dropped, a new term must be supplied. *Flavago* (ochracea) became virtually the type through Guenée's entire action in 1852. Up to 1875 the term seems to have been neglected.

#### HYDRÆCIA.

1841. Guenée, *Am. Soc. Ent. Fr.*, T. 10, *Noct. Eur. Index Meth.*, p. 237: cupræa, leucostigma (fibrosa), micæa (cypriaca), *nictitans* (var. fucosa).

This is the earliest mention of *Hydræcia* I can find in literature. No type is mentioned. I cannot positively trace *cupræa*; *cupræa* H. is probably the same and an *Agrotis*; *Leucostigma* is made the type of *Helotropha* Led., 1857, and might apparently have been taken for *Hydræcia*; *micæa* was already the type of *Gortyna* Ochs., in 1816; *nictitans* is apparently congeneric. The anal claspers should not be used for generic or sectional characters, their taxonomical value is cumulative, not independent. To distinguish the American specimens of *nictitans* from the European generically on account of a supposed difference in the anal claspers of the male is an absurdity, and yet this is what the course adopted by the Revisionist really amounts to. If it is "structural," the difference might naturally be considered generic, *i. e.*, higher than specific. But these are secondary sexual characters, not to be used as independent and generic or sub-generic, and I should judge them to be of even less value than the male antennæ. At any rate, solely upon them, no genus in the Noctuids can be recognized and, if no genus, then no section of a genus. Of the foregoing species there remained only *leucostigma* as an unemployed type when *Hydræcia* was proposed. There is no description given by Guenée of the genus *Hydræcia* in the *Index*.



Out of his own knowledge the author of the revision says: "*Hydræcia* was first used by Guenée in 1857, in his essay on the classification of the Noctuidæ," etc. This statement should be noted, because it illustrates the methods employed by Prof. John B. Smith to support his generic determinations. Guenée established *Hydræcia* not in his Essay itself, not in 1857, perhaps a misprint for 1837, but in 1841, in the *Index Method.*, all published in the *Annales*.

As to the statement that I ever "finally" followed example and adopted *Hydræcia*, the references to my last lists under *Gortyna*, show its want of truth. Parallel statements to these and indirect contradictions make up the introduction to the revision of *Acronycta* likewise. These introductions do not contain objective scientific facts, but are written solely to contradict or violently color my actions in the several instances and are simply nosebags of unconscionable and worthless statements, bound together by the one ruling idea that my authority should be broken down, *coute qui coute*. In this case it is fair to presume the author never had the essay in his hands, and intended to copy Guenée's technically incorrect reference in the *Species Général*. There is something painfully morbid about Prof. Smith's writings, a constant troubling himself with what I did or did not do; their publication is less a contribution to the knowledge of the American Noctuids than a proof of his ability to misrepresent and twist the facts with regard to my writings. And, when this Doctor of Science does not hesitate to affirm: that a pupa of *Eudryas grata*, having been conveyed accidentally across the Atlantic, disclosed in London a moth of *E. Stae. johannis*, and this owing to the "vicissitudes of the voyage," a want of causality not beaten by Aldrovandus, and *all* this merely because I had innocently recognized the distinctness of the two species in 1868 and 1882, then I think the limits of idiosyncrasy are overstepped, and we have arrived at the borderland of pathology. It never seems to occur to Prof. Smith that I am not interested that my statements should be adopted by him, but that they should be correct.

1852. Guenée, *Spec. Gen.*, 5, 125: Nictitans, lorea, cuprea, vindelicia, micacea, immanis, stramentosa.

*Lorea* has been referred by Herrich-Schaeffer to *Mamestra*; it has hairy eyes. Guenée now indicates as type *micacea*, but this choice is

impossible for it has been since 1816 the type of *Gortyna*. The only one of the original species which afforded an unemployed type is referred back by Guenée to *Apamea*, viz., *fibrosa* (leucostigma). Guenée expressly says he only published *Hydræcia* in the *Index*, but cites: "*Gn. Ess.*, p. 237," for this genus; it is not, however, in any of the textual parts of his essay and the paging is that of the *Annales*. *Hydræcia* is in the *Index*, at the close of the last paper, *Tom. 10*, 217, commencing with the page 235 and running up to page 250 of the *Annales de la Société Entomologique de France*. The title *Essai* is so far misleading, since the series of papers seems to commence in 1837, *Tom. 6*, p. 219, under another title; but it is kept up after a fresh start on page 311, in 1837, continues through 1838 and 1839, skips 1840, to conclude with the *Index* in 1841, as above cited. Prof. Smith writes of it as one might of an independent work, and, perhaps, fancies it is one and that it was published in 1837. But see how plain a tale will put him down.

1857. Lederer, *Noct. Eur.*, 119: *Nictitans*, then under B, with a difference in genitalia, *micacea*, *petasitis* (*vindelicia*), *xanthenes*, *illunata* (*lunata*), *borelii*, *mœsiaca*, *cervago*.

Lederer here extends the genus to all the species, except *flavago*, including type of *Gortyna*. And this is why I supposed that our yellow species, *i. e.*, *rigida*, *purpurifascia*, etc., were congeneric with *micacea*, and should likewise be referred to *Gortyna* and why I regarded the section *Hydræcia* to be the same as *Apamea*, Lederer's section A. For if *micacea* is correctly classified by Lederer as strictly congeneric with *Xanthenes*, it would follow that it is to Prof. Smith's second section that *Hydræcia* belongs and not to his first. But there is clearly but one genus to be considered which must be called *Gortyna*, as I have insisted in all my later lists. In *nictitans* there is an evident tuft on the first abdominal and weaker ones on the two following segments. Lederer's diagnosis should perhaps be here corrected. But the tufts are more or less evident: on thorax, behind the collar and on dorsum of abdomen; there is no uniformity among the species in this respect, and since no use of the anal claspers can be permitted, for it would separate allied and bring together unrelated species, there are no characters upon which we can depend for a sharp division of the genus. If we descend to comparative details there



would have to be very many more groups, at least six or seven, made of our American species.

In final answer to Lederer's being cited as an authority on generic nomenclature, I will state that on page 234 of his work Lederer states unequivocally, in so many words, that he regards the Verzeichniss as of no authority. Consequently, where this work is regarded as of authority, as it now almost universally is, Lederer's nomenclature fails. For his use of Hübner's genera and names is arbitrary and optative merely. There is no method in his selection, and this is reached by no rules of zoölogical nomenclature by which types are ascertained and generic titles assured. Lederer stands entirely outside of the historical method with regard to names of genera, as used, for instance, by Mr. Scudder, Lord Walsingham, Dr. Dyar, and modern authors perhaps generally. It is a distinct part of Prof. Smith's insincerities to conceal this fact.

1874. Grote, *Bul. Buf. Soc. N. S.*, 1874, April-May, 18: *nictitans*, *sera*, *inquæsita*, + *salicarum* (unidentified).

Type correctly given as *nictitans* and genus correctly dated 1841. (Why is this citation ignored by Prof. Smith?) Through Guenée's action in 1882, *nictitans* became virtually the type of *Hydræcia*. In 1890 and 1895 I refer *Hydræcia* as the same as *Gortyna*, and it can only be independently used if *nictitans* be made a generic type, for which there seem to be but insufficient characters. Since no description or type is given by Guenée originally, and since the selected material is incongruous to a degree, the term *Hydræcia* has the slightest possible claim to consideration. A most perfect example of Guenée's neglect of natural characters is afforded by his statement in 1852, that *lorea*, with hairy eyes, confirms him in the opinion that *cuprea*, with naked eyes but armed tibiæ, belongs to *Hydræcia* and to the same group!

To give a resumé of our North American species as left by me :

*Gortyna* Ochs, 1816.

Type : *G. micacea*.

= *Hydræcia* Guen. 1841.

Type : *G. nictitans*.

sera* G. and R.,	<i>harrisi</i> Grote,
obliqua* Harvey,	<i>rigida</i> Grote,
immanis Guenée,	<i>cerina</i> Grote,
stramentosa Guenée,	<i>speciosissima</i> G. and R.,
u-album* Guenée,	<i>rutila</i> Guenée,
<i>purpuripennis</i> Grote,	<i>cerussata</i> Grote,
juvenilis Grote,	<i>limpida</i> Guenée,
erepta Grote,	<i>marginidens</i> Guenée,
nictitans* Linné,	<i>appassionata</i> Harvey,
<i>lusca</i> Harris,	<i>impecuniosa</i> Grote,
<i>americana</i> Spezer,	<i>cataphracta</i> Grote,
var. <i>erythrostigma</i> Haworth,	<i>nitela</i> Guenée,
(a Calif. form comparable with	var. <i>nebris</i> Guenée,
var. <i>lucens</i> Fr.),	<i>necopina</i> Grote,
inquæsita G. and R.,	<i>serrata*</i> Grote.
purpurifascia G. and R.,	

*Ochria* Hübn., 1816.

Type : *O. flavago* (ochracea).

*sauzalitæ* Grote,

*buffaloensis* Grote.

*Helotropha* Led., 1857.

Type : *H. leucostigma*.

*reniformis* Grote,

var. *atra*, Grote.

This last may not be distinct from the European species, but the material compared shows certain points of distinction. Both these latter generic names are subsequent to the establishment of *Gortyna* with *micacea* as type, which is simply the oldest generic title in the group and, from every point of view, is entitled to priority and acceptance.

Previous to his visit to the British Museum the author of the recent Revision depended for his knowledge of most of the described species of *Gortyna* upon determinations originally made

by me in various collections between 1862 and 1883. The London collection found him unprepared, as may be seen by the effect upon him of the striking type of *appassionata*, a species, nevertheless, difficult to determine, and the description of which in the Revision accords but illy with Dr. Harvey's original. And from the slur thrown upon *necopina*, in reality one of the most remarkable and easily identified of the series. Nor were his studies there at all carefully and scientifically conducted, for which there is abundant proof, but with a bias and intent to break down at all hazards my determinations. Here he has neglected to take notes of the type of *erepta*, which he saw in the British Museum (*Wash. Cat.*, 175), but now states, with singular accuracy, is "unknown" to him (*Rev.*, 48). Returned to America, the author of the Revision became really indebted for his knowledge of species like *purpurifascia*, *harrisi*, *impecuniosa*, *necopina*, to Mr. Henry Bird and Dr. Roland Thaxter. That thus, without sufficient antecedent studies of his own, he should have ventured to appear as an authority upon a group to which he has certainly contributed doubtful determinations and inferior and useless redescriptions (as to *marginidens* he does not give the character of the dentate fringe, properly given by Guenée), together with at least one or two bad drawings of the genitalia, throws a strongly unfavorable light upon his public performances. He gives no credit for specific determinations where these are due to others, as is here plainly the case. The value of his judgment is tested by his statement, that the most distinct of all our species, *speciosissima*, only escaped the sad fate of being put down as one sex of our *inquærita*, by the accident that both sexes of the latter were before him in the amassed collections, which touchingly testify alike to the weakness and the amiability of their rightful owners.

The beauty of several of the species leads me to say a final word on the æsthetic value of insects like *Gortyna*. This division of the subject should be more seriously studied. Color and form are constituent parts of the object, and after the intellectual difficulties attending structure and nomenclature are surmounted, these remain as sufficient reason for our attention. When Science is finished, Art takes the matter up. Unless it be the wing of some butterfly, or petal of some flower, there is probably no similarly sized surface in the world more exquisite than the primary wing of *Gortyna impecuniosa*, when the moth is fresh or bred. It has all the depth which comes from a blending of rich dead colors. The

pattern itself is conventional. It has no conscious model, but is woven by the artistic imagination, as the tufted Persian carpet upon which one flies from Bagdad to Bassorah. The minds of educated persons, poets and painters, should be directed to pretty moths, such as our cloth of gold *Gortynæ*.

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*Stated Meeting, May 18, 1900.*

Vice-President WISTAR in the Chair.

Present, 22 members.

A letter was read from the K. K. Geologische Reichsanstalt of Vienna, announcing the fiftieth anniversary of its founding and inviting this Society to be represented on the date set, June 9, of this year.

A letter was also read from the Royal Saxon Antiquarian Society of Dresden, announcing the seventy-fifth anniversary of its founding and inviting this Society to be represented on the date set, September 26 next.

It was ordered that the receipt of these communications be acknowledged by the Secretary with thanks.

The following were elected members of the Society :

Dr. Cyrus Adler, of Washington.

Dr. H. F. Keller, of Philadelphia.

Hon. Edward Patterson, of New York.

Hon. George Gray, of Wilmington.

Wharton Sinkler, M.D., of Philadelphia.

Mr. Sachse presented to the Society a facsimile of the first German newspaper published in North America, printed by Benjamin Franklin in 1732. The thanks of the Society were tendered Mr. Sachse for the gift.